

SPEED UP YOUR **iPHONE**



Welcome...

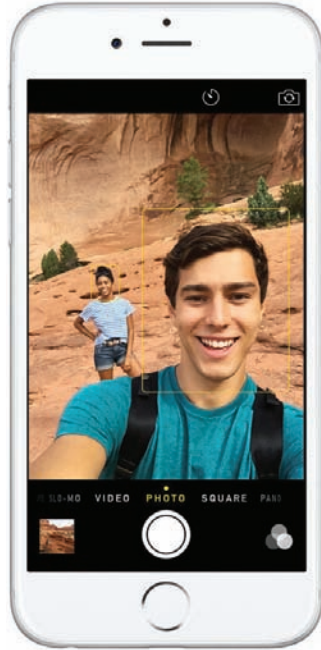
Welcome to this issue of *iPad and iPhone User*, the only guide you need to getting more from Apple's smartphone or tablet.

The need for speed is universal, and one of the key benefits of choosing Apple is that your brand new iPhone or iPad will be a supremely fast, responsive device. But over time, and with lots of use, any smartphone or tablet will gradually slow down. And that's where we come in.

If your iPhone (or your iPad) has become a little too tardy for your liking, you should turn to page 45 and find out how to speed it up. There is a lot that you can do to keep your handset like a shiny and new device: and it is all in our unique guide.

As ever we have all the latest iPhone- and iPad reviews, as well as tips and tricks so you can get more from the best phones and tablets you can buy. In particular, we are proud of our guide to time-lapse photography. The iPhone is unique in this capability, and it is a great way to create amazing video footage, albeit not particularly easy to do. Rest assured, you will be time-lapsing to your heart's content once you have read our guide on page 60.

Do let us know if there is anything you'd like to see in *iPad and iPhone User*, either by emailing matt_egan@idg.co.uk or tweeting me at [@mattjegan](https://twitter.com/mattjegan). We hope you enjoy the issue.



Google Nexus 6 vs iPhone 6 Plus

The two flagship handsets go head-to-head

Apple's iPhone 6 Plus has some tough competition, not least from Google's latest flagship smartphone, the Nexus 6. Over the following pages we put the two through their paces.

Design and build

Google worked with Motorola to design and build the Nexus 6, so the smartphone looks very similar to

the Motorola Moto X. It has a contoured aluminium frame, but the back is plastic, and comes in either 'Midnight Blue' or 'Cloud White', as shown above.

The iPhone 6 Plus, on the other hand, has a completely aluminium back case, which we think makes for a more premium look but others may disagree. It's available in silver, gold and slate grey colour options to suit your personal style.

The Nexus 6 is thicker and heavier than the iPhone 6 Plus. It's 10mm thick and 184g compared with the iPhone 6 Plus's impressively slim 7.1mm and slightly lighter 175g.

Interestingly, though, Google has managed to squeeze the 6in screen (which we talk about in more detail below) into a body that's not hugely different in size to the iPhone 6 Plus with a 5.5in display.

Google says that the Nexus 6 is 82.98mm wide and 159.26mm tall. Bigger bezels on the iPhone 6 Plus mean that it's only 1mm shorter than the Nexus 6 at 158.1mm and around 5mm slimmer than the Nexus 6, so if you're eager to get as big a screen





possible in as small a body as you can then the Nexus 6 definitely scores some points here.

Screen

We think that the iPhone 6 Plus's 5.5in screen makes the smartphone too big, and we much prefer the 4.7in screen of the iPhone 6, but Google has taken the Nexus 6 even further with a 5.96in screen, putting it firmly in the phablet category that the iPhone 6 Plus arguably falls into too.

You'll be surprised at how much difference half an inch makes when it comes to screen size, so it's worth holding both of these smartphones for yourself before purchasing either one to see whether you're comfortable using the larger device.

When it comes to display quality, iPhone 6 Plus boasts an impressive 1920x1080 pixel display

(401ppi) that Apple has dubbed ‘Retina HD’. The Nexus 6 beats it, though, with a brilliant 493ppi QHD display with a resolution of 2560x1440 pixels.

Hardware and performance

Inside the Google Nexus 6 is a Qualcomm Snapdragon 805 processor clocked at 2.7GHz and coupled with Adreno 420 graphics, so is a rather powerful smartphone. It has 3GB of RAM, too, while the iPhone 6 Plus has 1GB.

The iPhone 6 Plus is extremely powerful too, with its custom-built, 64-bit A8 processor and M8 motion co-processor that performed brilliantly in our tests, even during heavy-duty tasks.

You can see the results of our benchmark testing for both of these smartphones below. You’ll notice that the Nexus 6 scores better than the iPhone 6 Plus in the Geekbench processor speed test, but doesn’t fare as well in our GFXBench graphics tests or SunSpider browser test (in which lower is better). See our table below.

Both the Nexus 6 and iPhone 6 Plus have 802.11ac Wi-Fi, Bluetooth 4.1 and NFC connectivity options, in addition to 4G LTE.

One of the features of the Google Nexus 6 that we’d love to see on an iPhone soon is the

Benchmark scores				
	Geekbench 3	GFXBench T-Rex	GFXBench Manhattan	SunSpider
Nexus 6	3304	27fps	12fps	791ms
iPhone 6 Plus	2907	41fps	19fps	369ms

dual front-facing speakers, so if you're intending to watch movies or TV on that large screen and don't want to be restricted to headphones then the Nexus 6 is well worth considering.

The Nexus 6 doesn't have the fingerprint sensor that's found on the iPhone 6 Plus, though, so you won't get that added security and ease of use that we've found to be big time-saver.

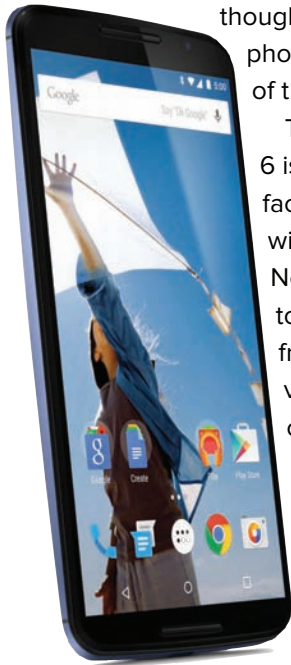
Cameras

The camera found on the rear of the Google Nexus 6 is 13Mp compared with the iPhone 6 Plus's 8Mp, though it doesn't have the bigger pixels that help improve the camera in the iPhone 6 Plus. Both smartphones offer optical image stabilisation, though. We've been impressed with the photographs we've captured with both of these devices.

The front-facing camera of the Nexus 6 is 2Mp while the iPhone 6 Plus's front-facing camera is 1.2Mp, so Google's phone will be a bit better for selfie lovers. The Nexus 6 has impressive video capabilities too, with support for 4K video recording from the rear-facing camera and 1080p video recording from the front-facing camera. The iPhone 6 Plus is capable of recording up to 1080p video from the rear camera and 720p HD from the front.

Software

For us here at *iPad & iPhone User* – who already use Apple's iOS operating



system as well as Macs – software is a huge factor to take into consideration when purchasing a new smartphone, so if you're also an iOS and/or Mac user then this could be the case for you too. If you buy the iPhone 6 Plus, you'll get iOS 8, which means you can quickly and easily transfer all of your apps, games, music and other content onto your new smartphone without needing to buy apps again or start games from scratch, for example.

Plus, with OS X Yosemite imminent, Mac users will also get Continuity features that will make life much easier for iOS 8 users, including the ability to AirDrop between an iOS device and your Mac.

All that and the fact that we simply love iOS 8's design, features and simplicity mean we're more likely to choose another iOS device, but if you've never owned an iOS device, if you don't use a Mac or if you're not keen on iOS 8 at all then you'll be interested to hear that the Nexus 6 runs Android 5.0 Lollipop, the new version of Google's operating system.





Price

The Nexus 6 will set you back £499 for the 32GB model, or £549 for 64GB, so is cheaper than the starting price of £619 of the iPhone 6 Plus.

iPad & iPhone User's advice

The Google Nexus 6 is a beast of a smartphone, with a huge 6in screen, so if you thought the iPhone 6 Plus was too big, then you can walk away now.

It can't trump the iPhone 6 Plus when it comes to design and storage capacity. If you're an iOS lover looking for a big-screened smartphone, the iPhone 6 Plus is a no-brainer, though we'd seriously consider whether the 4.7in iPhone 6 is big enough for your needs, but for Android phablet fans we've no doubt that the Nexus 6 will appeal. We're surprised that Google has decided to launch just one new smartphone, as we don't think the 6in screen will suit all of its customers and would have preferred to have a smaller option like the iPhone 6 offered by Apple.

iPhone 6/6 Plus cases

We round up the best cases for your new iPhone

Apple iPhone 6/6 Plus cases

iPhone 6, £35, iPhone 6 Plus, £39

store.apple.com/uk

The first cases you'll come across for the new iPhone 6 and iPhone 6 Plus are Apple's own cases, which are quite pricey but rather nice. There are various options available depending on your budget and tastes. The Leather Case for iPhone 6, available in five different colours (Black, Midnight Blue, Soft Pink, Olive Brown, Red), will cost you £35, while the iPhone 6 Plus Leather Case is £39.

There's a cheaper Silicone Case available for both new iPhones, and they come in six different,



brighter colours (Black, White, Red, Blue, Green and Pink) and cost £25 or £29.

Native Union Clic

£34.99

nativeunion.com/uk

We love the Native Union Clic Wooden Case for iPhone 6. They're hand crafted and precision engineered from solid wood, so each has a unique grain pattern. There are six different colours to choose from, each extremely stylish. We particularly like the Olive/Walnut design but there are also Marine/Cherry wood, White/Cherry, Blossom/Walnut, Coral/Cherry and Black/Walnut.



OtterBox Symmetry Series for iPhone 6

iPhone 6, £29.99, iPhone 6 Plus, £39.99

otterbox.co.uk

OtterBox is famous for its super-strong cases, either for the adventurer, ultra cautious, or very clumsy – or just parents with small, butter-fingered children. Its Symmetry Series of cases for the iPhone 6 feel like they take quite a beating before anything bad happened to your precious iPhone.

The Symmetry case comes in a wide range of colours, from Black to girly-girly patterns, and has dual-material



construction to absorb shock and withstands drops. In addition its raised bevelled edge should keep your iPhone 6 screen safe.

Casetify iPhone 6 cases

From £25

casetify.com

This cool iPhone 6 case maker lets you completely customise your case using photos from your Instagram, Facebook or from your computer. There are lots of different templates you can use to fill with your chosen photographs. And although this is an American company, you'll be pleased to hear they offer free shipping worldwide.



Mujjo Leather Wallet Case for iPhone 6 and 6 Plus

iPhone 6, €39.95 (£29);

iPhone 6 Plus, €49.95 (£37)

mujjo.com

iPhone 6 and iPhone 6 Plus cases don't get much classier than the Mujjo Leather Wallet Case, stitched leather with suede-lined case interior. The leather is vegetable tanned, meaning it takes on a patina and polish as it ages. Available in cool black, chic grey and tan, the Mujjo Leather Wallet Case features a card flap, which can be ordered at a stylish 80-degree angle for added cool.



Incipio Trestle case for iPhone 6 Plus

£27

incipio.com

Incipio's tagline for this sturdy iPhone 6 Plus case is "defend against the bend," playing on the bendgate issue that plagued the iPhone 6 Plus late last year. It's lined with steel braces, which are designed to stop the device from bending while in a snug pocket, for example.



Pad & Quill Bella Vida

£50

padandquill.com

This beautifully stylish case for iPhone 6 Plus comes with a choice of three different leather exteriors (Galloper Black, Whisky and Dark Chocolate) and four interior colours. It doubles as a wallet, with space for several cards, and also acts as a handy stand. The iPhone itself simply sticks onto the case thanks to a strong adhesive that leaves no residue behind. There are cutouts for all ports and buttons.





Casemade Leather Wallet

£15.95

case-made.com

Usually, you'd expect real leather cases to be pricey, but Casemade's Leather Wallet is a bargain at under £20 delivered. A plastic insert is used to secure your iPhone, and it's secured shut with a magnetic clasp. There's space for three credit cards, and all the ports, buttons and features you'll need have cutouts and are therefore accessible.

Adopted Leather Folio Case for iPhone 6 Plus

£40

adoptednyc.com

For Apple's bigger iPhone, Adopted makes a Leather Folio case made with genuine textured leather. It's more stylish than the Casemade offering, but offers less practicality, with just two spaces for credit cards and no clasp to keep the front of the



folio case firmly closed. It's available in a variety of gorgeous colours, though, including white/gold, blue/gunmetal and brown/gunmetal.



EC Technology Ultra-Slim LED case for iPhone 6 **£10**

iectechnology.com

Tucano offers several interesting designs of its iPhone 6 case, including the Leggero Stripes one shown here. It is made with what Tucano calls 'Eco-Leather'. Magnets help keep the front cover closed, protecting your iPhone 6's display with help from a microfibre lining. You'll also find two slots for credit cards on the inside of the case.



EC Technology Shockproof case for iPhone 6

£10

iectechnology.com

For those who are either supremely clumsy or engage in adventurous outdoors sports EC Technology offers its Shockproof Hard-Shall Holster that is built to withstand bigger than usual knocks and drops. It features a kickstand for hands-free use and a belt clip. Again, it can be found quite cheaply at under a tenner.



Xqisit Slim Wallet Case for iPhone 6/6 Plus

£18

xqisit.com

Ideal for anyone that wants to carry as little as possible on a night out, the Slim Wallet Case from Xqisit sports two card slots. It's available in black, pink or white, and wraps the iPhone 6 or iPhone 6 Plus in protective synthetic leather, sealed with a magnetic clasp.



STM Dux case for iPhone 6

£29.99

stmbags.com.au

STM's Dux case for iPhone 6 has reinforced corners to protect your iPhone from bumps and knock, but also has a clear back to allow the colour and design of your shiny new iPhone show through. The Dux case is available for both the iPhone 6 and the bigger iPhone 6 Plus, and also comes in red or black.



Nodus Access Case for iPhone 6/ 6 Plus

iPhone 6, £59.99; iPhone 6 Plus, £69.99

thenoduscollection.com

Apple's leather iPhone 6 case doesn't feel particularly leathery or premium, which is not the case (ahem...) with the Access Case from Nodus, which includes its own unique twist.

It's crafted from full-grain Italian leathers with a soft micro-fibre lining. Unlike the Apple case the Access looks and feels like a proper, premium leather wallet.

The secret twist in the Access Case is its Micro Suction bond that keeps the iPhone in place, and



allows you to attach and remove the iPhone in seconds without bulking up the slim smartphone. There are two micro-suction pads bonded to the inside surface of the case, the surface of which are covered in millions of microscopic suction cups, invisible to the eye. It provides a strong grip and marvellously doesn't leave any residue when removed.

The case can also bend to form a stand. If the pads get dirty, Nodus says that full suction power can be restored by gently cleaning the material with a damp cloth and allowing it to air dry. You line up the iPhone 6 in the case using the camera cutout as your guide. It's simple and very effective.

The Access Case for iPhone 6 is available in two models: Portfolio and Flip Down; and each is in either Ebony (Black) or Chestnut (Brown).

Both cover the iPhone's fragile screen from knocks and scratches, as well as potentially save it from shattering if dropped. Each also includes a handy area for credit card, business cards, bank notes or travel card.

Incipio DualPro iPhone 6 case £19

incipio.com

Incipio's DualPro case for iPhone 6 and iPhone 6 Plus is made with two pieces for extra durability. One is an impact resistant polycarbonate frame, while the other is a shock absorbing dLAST TPE inner layer. It comes in lots of different colour combinations, too,



so there's one for everyone. There's also a DualPro Shine case for iPhone 6 Plus that has a more premium-looking finish in various metallic tones, and is priced at £22.

Case-Mate Barely There iPhone 6 case

£13

case-mate.com

Perfect for those looking for a case without the added bulk, weight and disguise, the Case-Mate Barely There cases come in various colours for both the iPhone 6 and iPhone 6 Plus, and they're only £13 each.



FlexiShield iPhone 6 case

£5.99

mobilefun.co.uk

A bargain at £5.99, the FlexiShield iPhone 6 Case is designed to be slim but protective. It's made with a flexible but tough gel (hence its name).





Case-Mate Creatures iPhone 6 cases

£13

case-mate.com

We love the fun Case-Mate Creatures cases. They're not very practical but they're sure cute! The Panda one is among our favourites, but you'll also find a pig (which slightly cruelly comes with an egg and bacon attached to the bottom corner), a koala, a fox and a puppy. The Creatures cases are currently only available for the 4.7in iPhone 6, and not for the iPhone 6 Plus.

Spigen Ultra Hybrid iPhone 6 Bumper Case

£19.99

amazon.co.uk

This iPhone 6 combines a see-through case with a coloured bumper around the edge, providing lots of protection but also allowing you to see the gorgeous design of the iPhone itself. You'll be able to access all ports, controls, buttons and connectors



so you won't need to remove the case, and you'll get a free screen protector to make sure you don't scratch that new, bigger display.

Proporta iPhone 6 Plus Bumper

£14.95

proporta.co.uk

The Proporta iPhone 6 Plus Bumpers cover just the edges of the iPhone 6, leaving the front and the back of your iPhone exposed, but they do help to protect the device if you drop it, and also make the iPhone rest slightly above any surface. We'd only recommend using a bumper if you really hate cases, and would advise you to get yourself a screen protector, too.



Omaker Bumper case for iPhone 6

£19.99

amazon.co.uk

We like the Omaker Bumper case for iPhone 6. It uses air cushion technology and shock absorption technology to help protect the smartphone without adding too much extra bulk.

Basically, that technology involves a flexible material, padded corners, slightly raised edges to protect the screen and camera, and a grainy interior to help save your iPhone 6 in the case of bumps and knocks.

It's semi-transparent, too, so you don't have to completely cover up the design of the iPhone itself. You'll get access to all of the iPhone's ports and buttons, and you'll also get a tiny plastic component that can help prevent dust and dirt from finding its way into the headphone jack.



The Dairy iPhone 6 case

From \$35 (£22)

thedairy.com

The Dairy is an awesome Australian case-making company that offers hundreds of designs that'll suite a huge range of iPhone 6 owners. You'll get the option of a simple snap case or an armoured case for better protection.

Designs include abstract images, Disney-inspired illustrations, photographs and much more – it's worth browsing the website. You can also create



your own case for a range of smartphones including the iPhone 6 and 6 Plus on The Dairy's website.

Cygnett WorkMate for iPhone 6

£14.95

uk.cygnett.com

Cygnett's WorkMate iPhone 6 case is designed with shock absorption in mind, made with a three layers. The outer layer has a high-grip silicone inlay and anti-slip ridges around the edge, too. It's available in three colours: blue, red or black.



Grovmade Walnut & Leather iPhone case

£80

grovmade.com

This beautifully hand-crafted case for iPhone 6 or iPhone 6 Plus is made with Oregon Claro Walnut

and vegetable-tanned leather that oozes style and sophistication. The wood portion of the case protects the edges and back of the iPhone while the soft leather flap protects your iPhone's screen but also doubles as a stand.



Griffin Survivor All-Terrain iPhone 6 case **£30**

griffintechnology.com

For the clumsy among you, Griffin has launched the Survivor All-Terrain iPhone 6 and iPhone 6 Plus case. It uses four layers of protection including a built-in screen protector and sealed ports to keep your iPhone safe from drops, dust, rain, impacts and vibration, according to the company. It even comes with a heavy-duty rotating clip to secure your iPhone to your belt or bag.



iPad mini cases

Keep your iPad mini safe with these cases

Apple Smart Cover

£29

store.apple.com/uk

Apple's Smart Cover is made with Polyurethane, and comes in a range of brightly coloured designs. There's black, white, pink, yellow, blue, green or red. It doubles as a keyboard stand or FaceTime stand, and will automatically wake up your iPad when you open it and send it to sleep as you shut it. The Smart Cover connects to your iPad mini using a magnetic hinge.



iPad mini Smart Case

£55

store.apple.com/uk

Of course, the Smart Cover only protects the front of the iPad. If you want all-round protection, the Apple Smart Case might be more ideal. It's quite a bit



more pricey, at £55, but it's made with leather and offers the front protection and stand functionality as the Smart Cover but with the added back and side protection. There are five colours available: black, red, midnight blue, olive brown or soft pink.

Twelve South SurfacePad for iPad mini

£50

twelvesouth.com

We love the SurfacePad for iPhone, so we're excited to see that Twelve South has expanded the range to fit the iPad mini, too. Made with smooth, genuine leather and lined with microfibre, it covers the front and back of Apple's tablet, and also acts as a stand thanks to the clever placement of magnets. It's slim, too, adding minimal bulk to the iPad. There are four colour choices: Pop Red, Mod White, Jet Black and a new Camel colour.



Proporta Carbon Fibre iPad mini case

£39.95

proporta.co.uk

Proporta has come up with a shotgun tested Carbon Fibre case that will provide exceptional protection for your iPad mini. It's made with a leather exterior, a carbon fibre lining, and a microfibre interior, and includes convenient cutouts too.



Barbour Julie Dodsworth iPad mini case

£34.95

proporta.co.uk

This pretty series of iPad mini cases is the result of a collaboration between Barbour and designer Julie Dodsworth. Each case is made with faux leather and includes an internal pocket, magnetic closure and the ability to be used as a stand.



Griffin TurnFolio for iPad mini

£35

griffintechology.com

This practical TurnFolio iPad mini case opens like a notebook and the iPad slots into a protective frame that holds it in place. Flip the cover over and it is capable of holding your iPad mini into landscape or portrait mode for a four-position work stand. The entire frame surrounding the iPad mini



is removable too. There are cutouts for all ports, buttons and cameras, and it's available in a range of colours and designs.

Maroo iPad mini case

£35

maroo.com

Maroo has a series of iPad mini cases, including four that use its super-protective SG Bumper technology. Made with leather, the Maroo iPad mini cases are stylish and durable, with a hand strap for carrying, an interior pocket and the smart magnet functionality that automatically wakes your iPad.



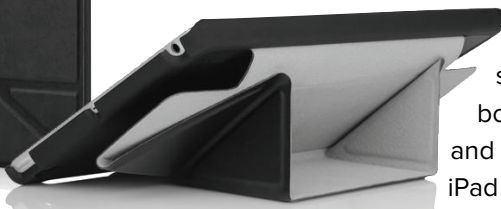
Incipio LGND iPad mini case

£24.99

incipio.co.uk

We like Incipio's LGND case for iPad mini, which combines a hard shell with a clever origami-style front cover that can be folded to create various stand angles, which are easy to position and will remain sturdy thanks to internal magnets.

It's available in grey, pink, black or red, and



is a folio style case so will protect both the front and back of your iPad from knocks and scratches.

STM Dux for iPad mini

£39.95

stmbags.com.au

Here's a great case for those who like to get a bit creative. From the front, it looks like an ordinary case, with a folio style that covers the front of the iPad and clips into place using a secure magnetic clip. But turn the case over, and you'll find that it's completely clear, designed to allow you to add your own photographs, notes, drawings and more. If you'd prefer, though, you can always leave the space clear to allow the design of the iPad and the Apple logo to shine through.



Everything Tablet iPad mini case

£29.99

everythingtablet.co.uk

We've always found Everything Tablet's cases to be sturdy, practical, stylish and affordable, and find the 360-degree rotation functionality particularly useful. Available in Gunmetal Carbon, Black Carbon, Baby Blue, Baby Pink or Orange, Everything Tablet's iPad mini case allows you to position your tablet



in portrait and landscape views at three different angles. The case also has a magnetic sleep and wake function, an elastic strap for added security and cutouts for all ports and functions.



Twelve South BookBook Travel Journal **£75**

twelvesouth.com

Part of the BookBook family is the Travel Journal, and we rather like it. It's designed as a case for your iPad – either the iPad Air or iPad mini – but it also has lots of pockets and space to allow you to carry loads more within it. In addition to your iPad, you could fit headphones, a mouse, a stylus, a battery pack, cables, batteries and more, to keep everything you need in one place.

We love the bookish design, which lets you disguise your tech as a hefty old-fashioned novel. Plus, made from real leather, the BookBook has a luxury look and feel.

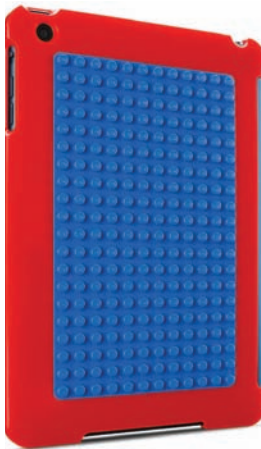
OtterBox Defender Series for iPad mini **£69.95**

otterbox.co.uk

Available in a huge range of customisable colour combinations, the Defender case is ideal for someone looking for mega protection for their iPad



mini but with the ability to put a dash of their own personality into the case. It has a rugged, multi-layer design that makes it perfect for the clumsy among you, but also for people working on building sites, perhaps, and people with young children who tend to throw things aside when they're bored of them. It's worth noting, though, that this case covers the home button so won't work with the iPad mini 3's Touch ID fingerprint sensor.



**Belkin Lego
Builder Case for iPad mini**
£44.99

belkin.com/uk

If you're looking for something a bit more fun, look no further than Belkin's Lego Builder Case for iPad mini, which comes in three different colour schemes and sports a Lego base plate on the back. This means you can get your Lego bricks out and build anything you want right on top of your

iPad. There's a Smart Cover-like front cover, which features the auto wake feature, too.

Proporta Barbour iPad mini quilted case

£54.95

proporta.co.uk

British Heritage brand Barbour has teamed up with Proporta to create this iPad mini case that uses the same fabrics and materials as Barbour jackets, complete with the tartan interior. It can be used as a stand, and leaves cut-outs for all ports, buttons and functions.



Griffin IntelliCase for iPad mini

£34.99

griffintechnology.com

Griffin's IntelliCase covers both the back and front of the iPad mini, and its Smart Cover-like functionality enables users to position the iPad in two angles, and sleep and wake the iPad using the built-in magnets. It's available in various different designs.



Belkin Striped Cover with Stand**£34.99****belkin.co.uk**

This practical case from Belkin is made with non-slip material to offer a stand with two angles and protective corners to hold the iPad mini in place.

**Cygnett FlexiGel for iPad mini****£19.95****uk.cygnett.com**

The FlexiGel is a simple flexi-case designed to protect your iPad mini from scratches and impacts. It provides access to all ports and functions, and is available in blue or black.

Case-mate Tuxedo for iPad mini**£25****case-mate.com**

The Tuxedo for iPad mini is much like Apple's own Smart Cover. However, it extends around the rear of the iPad mini, and is attached with a super-strong adhesive tape (which leaves no residue when removed).





Falling out of love

Why Simon Jary, *iPad & iPhone User's* publishing director, has fallen out of love with the iPad

There's no doubt that in its five years of existence Apple's iPad has revolutionised personal computing. It just hasn't revolutionised mine. I really did think it would, but it hasn't. In fact, I hardly ever use it any more.

Everyone wanted one. But how many people still actually use it that much?

I was an early iPad adopter, and even upgraded to version 3 (can't remember why, though). But my iPad lies mostly unused in the tech drawer at home – with the wired headphones, Apple TV and viper's nest of USB cables and adaptors.

When the iPad was born my daughter was approaching three, and ripe for the many apps that soon begged to be downloaded. She was an eager

user, and I followed suit, downloading apps and playing games with her. But over time she asked for the iPad less and less, preferring, as I do, the convenience of the iPhone, which is more likely to be around or indeed charged.

I never really got into reading newspapers and magazines on the tablet. The few situations I have for reading periodicals fall out of the iPad's reach.

The apps that once bonded my daughter and me to the iPad are pretty much all available on the iPhone. There are exceptions where the iPad's larger screen does justice to the apps: Let's Create Pottery and Spy Mouse, for example. Even the expansive world of Minecraft works fine on an iPhone 6.

Of course, most games and photos look better on the larger screen. But how often do you put your phone aside to get out the iPad to take advantage of that 9.7in screen. And shoot me if you ever see me outside taking a photo with one.

One game that demands the iPad is the wonderful Osmo, which actually moved the tablet on to another level of gameplay. If there were more apps like Osmo and my iPad would leave the cupboard more often.



But for everyday personal computing, the phone and a laptop will do just fine: email, web browsing, Facebook, sports results, news sites, Google, Wikipedia, Excel, Word, Calendar, iTunes, and so on all aren't made greater on an iPad. Often they're better on a smaller screen.

That big slab in between doesn't get a look in much any more – unless you don't have a smartphone or laptop, and who doesn't these days?

Sure, the iPad works for some things: commuters watching movies and TV shows. FaceTime maybe, but that's more convenient on an iPhone, I'd argue. Bigger screen = better, unless you have to hold it too long and wear out your arms.

The fact remains that in my house the iPad is rarely seen. My daughter, now eight, is no screenaphobe. She'll happily sit in front of our iMac or MacBook Air coding all day (tablets are better at consumption than creation) or watching clips of Horrible Histories. But only when she tires of such things might she enquire about the whereabouts of the iPad.

If he was still with us, I wonder if Steve Jobs would agree with himself (which he mostly did) when a few years before he revealed the iPad, he said that a tablet can't do much more than an iPhone can.

Apple sold 300,000 iPads on its day of release, and a





staggering 18 million in its first year. Total worldwide sales of the iPad are now in the region of 256 million.

But, while still buoyant, iPad sales have declined over 20 percent since this time last year. Last October they dropped 13 percent. The quarter before they'd fallen 16 percent. Indeed, sales of all tablets (iPads and Android) fell nearly 10 percent in the final quarter of 2014.

Apart from speed – and much improved free versions of iOS – the iPad hasn't really changed at all in five years.

I haven't been tempted by a Retina display iPad. It's just a nicer screen. If my current iPad's display was rubbish I might have been tempted to upgrade, but it's just fine for me.

There are no other new features in the hardware. You can't say the same about the latest iPhones, with their larger screens that have proved wildly popular with the buying public.

Another reason that iPhones are upgraded more often than iPads is the way that we basically rent them through carrier Pay Monthly deals. These mostly run out every two years, just in time for a 'cheap' upgrade to the latest model.

The iPad is a beautiful but largely pointless thing. Happy Birthday to you! As a treat, I'll get you out of the drawer tonight and see if you have enough charge for a play.



Manage music in iOS 8

Complete guide to the Music app in iOS

Music is close to Apple's heart, and every device it makes is great for playing audio. The iPhone, iPad and iPod touch all have dedicated Music apps, online audio features and pretty decent speakers... iOS devices remain the world's best (or at least most popular) music players.

In this feature we're going to gather together all the knowledge we have about playing, managing and storing music on your iPhone, iPad or iPod touch: the key tricks and techniques are outlined below, and we've linked to other articles for more specialist and advanced tips.

This guide to iOS music has everything you need to know to get the most out of your audio on an

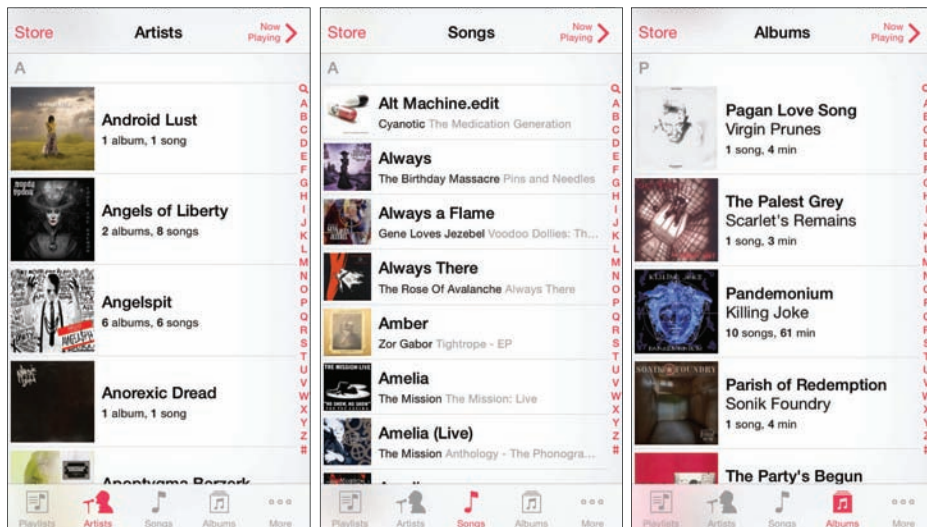
iOS device. So kick back, turn up the speakers and let's find out what there is to know about playing music on an iPhone.



How to use the iOS Music app

Apple ships an app called Music with iOS, and you'll find it on the Home screen of every iPhone, iPad and iPod touch. Music has a red icon with a musical note (pictured), and out of the box (and long afterwards for many users) sits in the Dock at the bottom of the screen for fast access, along with Phone, Mail and Safari.

The tracks are arranged automatically by Artist, Song and Album, and you can manually create Playlists (collections of tracks). Tabs along the bottom of the screen enable you to switch between these different items. A More tab reveals Genres, Compilations and Composers. Tapping the *Edit*



button enables you to rearrange the tabs on the bottom so that Music displays the items you want.

Clicking on an Artist or Album in the list takes you to the tracks from that artist or album, and clicking on an individual song starts to play the song.

If you turn the iPhone horizontally, you will see all the songs displayed as album covers (see opening image). Tap an album to view its tracks, and tap a track to begin playing it.

In vertical mode, you can also tap the Now Playing icon to view the album cover art, along with two sliders. The top slider controls the position of the audio, while the bottom slider controls the volume.

Below the album artwork is the name of the song. Tap the song name to switch to stars mode, which enables you to rate each track out of five stars (you can create playlists and sort songs by how highly you rate them).

You also find here traditional media playback controls such as Play/Pause, Next and Previous. Below this are three buttons: Repeat, Create and Shuffle. Tap Repeat to reveal Repeat Song and Repeat Album options. Shuffle randomly chooses songs from the Album, Artist, Playlist or all songs depending on the option you've chosen.

Create reveals an option called Genius Playlist. Tap this to create a playlist of tracks from your music that are similar to the one you are playing. It's a great way to quickly choose a style of music.



Controlling music from the Control Centre

You can also control music in iOS from the Control Centre. At any time in iOS you can drag up from the very bottom of the screen to reveal the currently playing song, and both Playback and Volume sliders (along with Play, Next and Previous buttons).

Download music

There are three main ways to do this:

- **Buy music from the iTunes Store**

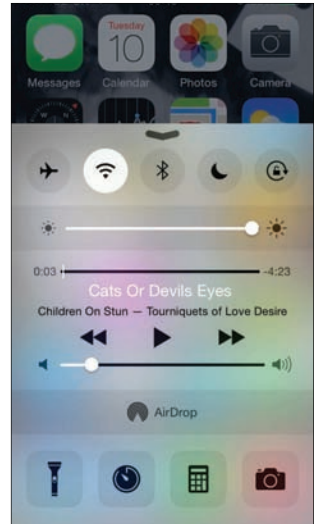
This is a separate app from which you can buy a wide range of music.

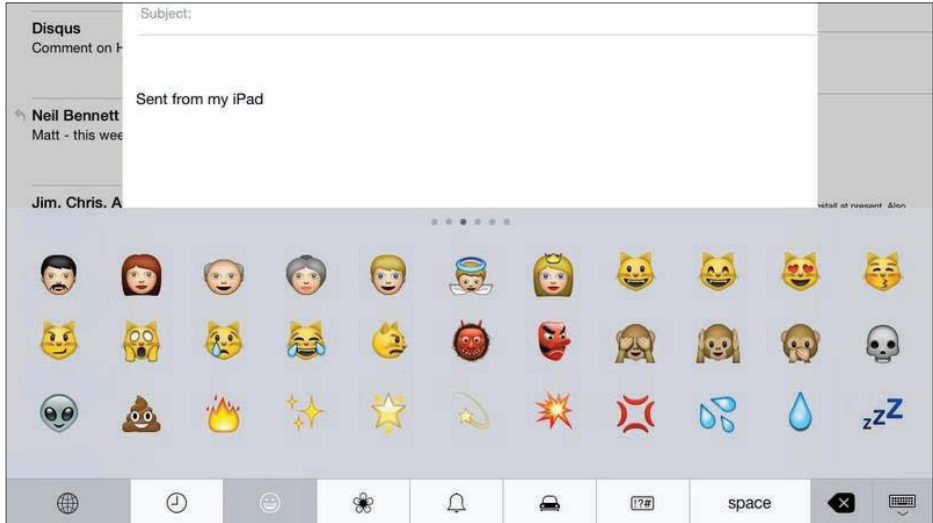
- **Sync music from iTunes on a Mac or PC**

If you have a collection of music in iTunes on a Mac or PC, simply connect your iOS device to the computer (using the Lightning to USB Cable). A small icon representing the device will appear in the iTunes menu bar. Choose Music in the sidebar and select the Sync Music option. You can choose to sync your entire music library or individual tracks, albums, artists or playlists. Click Sync when you are ready.

- **iTunes Match**

This is a service offered by Apple for a fee (currently £21.99 per year). With iTunes Match all of your music on all of your Macs is matched against the tracks in the iTunes Store (or uploaded to iCloud). You can then stream or download wirelessly all of your music on any iPhone, iPad or iPod touch (or any other Mac) using the same Apple ID and iCloud account.





How to use emoji

Add some colour and emotion to your messages

Emojis are the ideograms – smileys – used in electronic messages and on websites. You may know them more generally as ‘emoticons’, but emoji are a subset of that phenomena. Emoji are widely used in Japanese culture, but their use has spread around the world, and on to many devices.

‘Emoji’ is itself an Anglicised version of the Japanese words for ‘picture’ and ‘character’, which is pretty self explanatory. Emoji are incorporated into Unicode, and are therefore now available on many Android devices, within Google’s Gmail and – yes – on your Apple device. You just have to find them to unlock the fun.

Emoji vs emoticons

The essential difference between emoji and emoticons is that ‘emoticon’ is a general term for smiley faces used in text messages. When you use :-) and it resolves to a face graphic, that is an emoticon. Emoji are graphics you insert from a special keyboard, while composing messages.



There are many more emoji than there are emoticons, and they are standardised images built into mobile devices such as iPhones and iPads. You may also find that some emoji have a particularly Japanese flavour. Japanese foods, animals and characters feature widely. And some images just don't translate.

Apple and emoji

Emoji first appeared on Macs as far back as OS X 10.7 Lion. iOS of course allows you access several hundred emoji. In both cases you can use emoji in most apps, whenever you access the onscreen keyboard. We talk about how to use emoji on your Mac in this feature: Four fun ways to customize your Mac. So let's now look specifically at using emoji on your iPhone or iPad.

Use emoji on iPhone or iPad

We have a very in-depth guide, that I urge you to check out: how to use the Emoji keyboard on iPhone or iPad. Here's the short version – first you need to enable the emoji keyboard. Go to Settings →



General → Keyboard. Now tap Keyboards. Select Add New Keyboard, and then tap Emoji. In this shot the keyboard has been added.

Now, whenever you are in Mail, Messages or any of the text-input apps, you have to open the emoji keyboard to use the little blighters. When you can see the keyboard, just tap the Smiley face icon to go straight to the good stuff, or press and hold the Globe key and then select Emoji. Tap the icons at the bottom of the keyboard to switch emoji themes. Within each theme, you can swipe left or right to view more. To see emoji you've used recently, tap the Clock icon. It's emoji o'clock, so get cracking.

Get more emoji on your iPhone or iPad

There are multiple apps on the app store that purport to offer additional emoji to your iPhone- or iPad's arsenal. Most are paid for. In each case you install the app and then enjoy additional and colourful emoji. If you are new to emoji I would suggest using the built-in iOS keyboard until you feel you have exhausted its creative capabilities. Otherwise you could end up spending your hard-earned on emoji you neither need nor want.



Speed up an old iPhone

Get an old handset running like new

If you're still using an iPhone that's two or more generations old, the chances are that it isn't as nippy as it used to be. The interface seems more sluggish, apps take longer to open or run – it just isn't the swift device you remember. Maybe it's been performing more slowly since you installed iOS 7 or iOS 8. But there are some techniques we can use to speed up an ailing older iPhone. Whether you're on an iPhone 3GS, 4, 4s, 5, 5s or 5c, you can benefit from our speed tips for older smartphones.

Apple's iPhone 6 and 6 Plus are its flagship smartphones, but older models remain popular: the iPhone 5s and 5c are still sold by Apple as budget

alternatives, and plenty of Apple fans continue to use an iPhone 4s, 4, 3GS or even older model.

But is your iPhone still performing? All computing devices are prone to slowing down over time, as their memory fills up and extra software is installed, but the way iPhones use their memory makes them less prone to this than most.

It's possible that it just feels slower than it used to, because you've got used to what initially seemed dazzlingly quick operation, or have started to compare it to friends' newer, faster models.

But sometimes it's possible to make a direct comparison: when there's an app you used to enjoy but has since become unusably juddery. Such a situation is what led us to write this feature. The wonderful, super-fast game Super Hexagon demands lightning reflexes to survive, but the stuttering graphics on our iPhone 4 now make it impossible to play. We've also been seeing problems with the iPhone 4 handling Temple Run 2.

Here are some great methods to speed up an iPhone 3GS, 4, 4s or even 5, 5c or 5s, if you're not happy with the way it's running.

Is your iPhone up to date?

Apple's most recent operating system for the iPhone and iPad is iOS 8. On older smartphones, it's possible that upgrading will slow down your iPhone a bit, but on some occasions it may even help it run faster. (The iPhone 4 and earlier aren't compatible with iOS 8 upgrades). Check if your iPhone is up to date by heading to Settings → General → Software update. The latest iOS 8 update is iOS 8.1.3.

Shut down all open applications

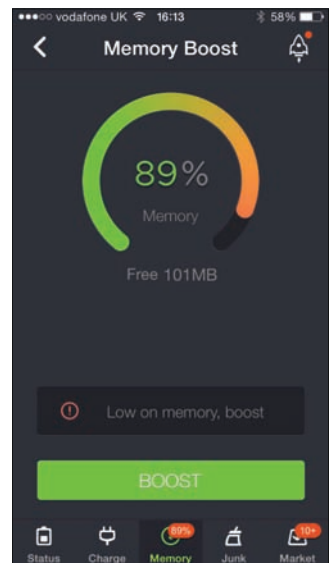
Let's start with the easiest solution: closing down all nonessential apps.

Double-click the Home button to bring up the currently running apps in iOS 7 or later. Swipe upwards to close them. You can swipe with up to three fingers to speed up the process a little bit. Irritatingly, there's no way to close them all at once. We're going to close down everything, then start again from scratch.



Reallocate the memory

The iPhone 6 and 6 Plus have 1GB memory, but older models have less. Apple doesn't make reallocating this RAM type memory easy but there is a way. Download the free Battery Doctor app. We use this primarily to reallocate our memory on our iPhone. If you find that you're using up lots of memory, tap 'Boost' and watch as the app reallocates the memory and helps speed up your phone. We're not sure how long this app will stick around, as it seems that the memory feature has been removed in the past before reappearing in new versions of the app. It's possible that Apple isn't keen on apps that allow you to reallocate the RAM.



Restart

Let's restart the iPhone completely. Press and hold the Sleep button (the one on the top right of the iPhone) until the Power Off slider appears. Swipe it and wait for the iPhone to power down.

Once it's finished (it'll take about 10 seconds or so), start the iPhone up again by pressing and holding the Sleep button for about 5 seconds. You'll see the Apple icon for a minute or so, then the iPhone will restart.

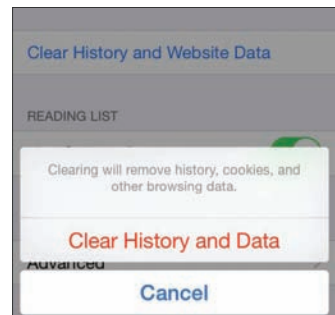
You shouldn't have to do this very often, but when you do it'll clear out the memory space and can often fix unruly apps. The occasional power cycle helps keep iOS ticking over.

Delete apps

Erase apps you don't need by going to Settings → General → Usage and then tapping manage storage. You'll see a list of apps and how much space they are taking up on your phone. Aim to have at least 1GB space left, so delete any apps you don't need by tapping on it, and then tapping delete app.

Clear your Safari cookies and data

Open the Settings app and scroll down to Safari. Here you can choose Clear History and Clear Cookies and Data. (Bear in mind, though, that Safari will no longer suggest URLs as you type, unless they're bookmarked. And clearing the data may mean some websites forget your preferences.)



Kill automatic background processes

Getting rid of automated features will help keep your iPhone running faster in iOS 7 and iOS 8, and help extend your battery life as well. If you're running iOS 6, you can skip this step as Apple didn't introduce these features until iOS 7.

- **Turn off Automatic Downloads**

Tap Settings → iTunes & App Store → and turn Automatic Downloads off. If you spend a lot of time uploading Music, Apps and Books you might want to turn off those as well.

- **Turn off Background App Refresh**

Tap Settings → General → Background App Refresh. Turn Background App Refresh off and tap Disable Background App Refresh.

Both of these are luxury items. You don't need them and you'll see a big boost in battery life, as well as a noticeable increase in performance.

Turn down the graphics

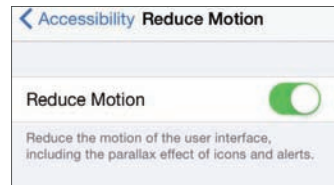
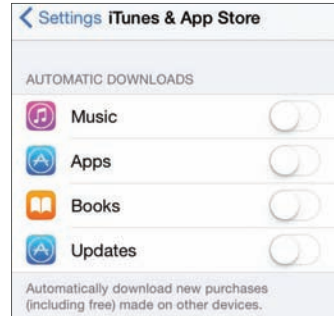
Again, iOS 6 users can skip this step because it only relates to iOS 7 and iOS 8.

- **Turn off Motion**

Tap on Settings → General → Accessibility → Reduce Motion and set Reduce Motion to On. This turns off the parallax effect.

- **Increase Contrast**

Tap on Settings → General → Accessibility → Increase Contrast and set Reduce Transparency to On. This

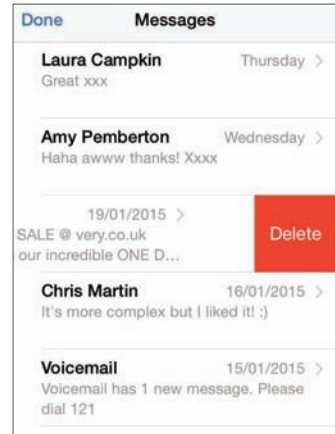


disables the see-through background effects, which speeds up iOS 7 and iOS 8. It's most noticeable on Control Centre which will now have a solid background and should work much faster.

Both of these will help with battery life, but are especially helpful for speeding up iOS 7 and iOS 8.

Delete text messages

We'll continue on our quest to free up memory by going through the Messages app and deleting everything that we don't need to save. Open Messages and scroll down to find any message threads that you can manage without. Swipe to the right and tap Delete.



Erase unnecessary songs, photos and videos

Okay, let's get serious. Open the Settings app, then tap General, and Usage like you did when we were uninstalling apps. You'll see how much storage space is left and which apps are using up most of the space.

If you're anything like us, the top two culprits will be Music and Photos & Camera, because these apps' storage usage includes music, images and videos. We'd suggest keeping at least 1GB free to make sure there's some free space for iOS to shunt files around without having to do too much juggling.

Open the Music app and find the non-vital track, album or artist that you want to delete. Swipe to the right and press Delete.

Plug the iPhone into the Mac and open Image Capture (assuming you've not set it to open automatically when it detects an iOS device). Tick the option 'Delete after import' at the bottom left.

Click the photo you want to copy across, or select multiple consecutive photos using the Shift key, and drag and drop them into a folder on the Mac. You'll see a green tick appear next to them in Image Capture, to show that they've been downloaded.

If there are any photos on there you don't want to keep but still want deleted from the iPhone, select them and click the red circle at the bottom. Image Capture will confirm you want to delete the photo.

Of course, you can also delete photos on the phone itself. Open the Photos app, find the images you want to delete, tap 'Select' and then tap on the images you want to delete. Tap the bin icon and confirm to delete the photos you've selected.

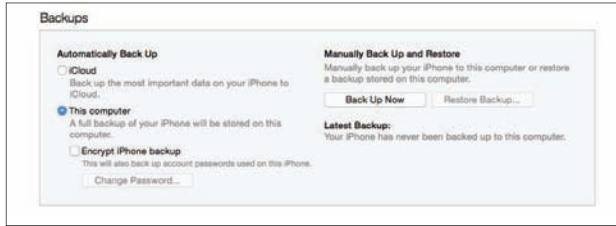
Reset

A more drastic step than restarting the iPhone, a full reset takes longer but is a more effective way of solving problems with the way an iPhone is running.

Press and hold the Home and Sleep buttons at the same time. Keep holding them while the screen goes black (the red power-off slider may appear; if it does, just carry on holding the buttons), right up until the silver Apple logo appears. When that appears you can let go.

Restore from backup

The next stage after resetting the iPhone, getting steadily more drastic as we go, is restoring it from



a backup. If you've backed up recently, you can simply restore from that. Plug the iPhone into the Mac and open iTunes.

Click the iPhone (if you've plugged in more than one iOS device it may say '2 devices' or similar instead). Under Backups, click 'Restore Backup'.

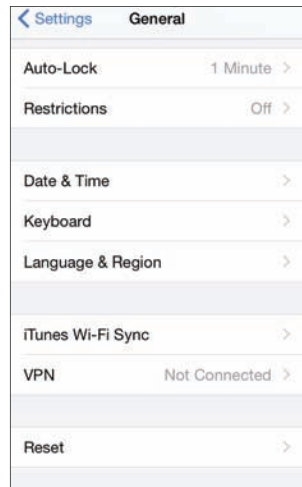
(To back up your iPhone into iTunes, click the Back Up Now button next door.)

Of course, that's going to undo all of the changes you just made to your device (deleting apps, removing unwanted music, and so on), unless you backed up your iPhone afterwards.

Restore to factory settings

Finally, the most drastic step of all: we're going to perform a full restore, which deletes all the data on the iPhone and returns it, in effect, to the state it was in when you bought it. (Except that the hardware components will still have suffered a number of years of wear and tear, of course.)

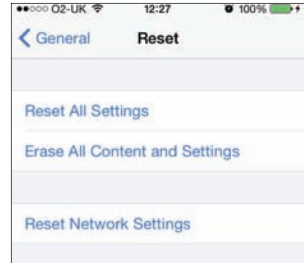
Since we're deleting all the data, it's important that you back up the iPhone: either back up to iTunes, as described above, or to iCloud. (To back up to



iCloud, Open the Settings app, then scroll down to iCloud, then Storage & Backup, then Back Up Now in iOS 6 or turn on iCloud Backup in iOS 7 and 8).

Now you can restore the iPhone to its factory settings by going to Settings → General → Reset → Erase All Content and Settings. You'll then have to enter your passcode if you've got one, and then confirm that you want to delete all media and data, and reset all settings.

After a few minutes of restoring, you'll be presented with the welcome screen you saw when you first started up the iPhone.



Check your warranty, and make an appointment with Apple

If none of the above techniques work, it's time to decide whether the speed of your iPhone is a serious enough problem for you to take it up with Apple. If there's a problem with a component, the issue may be covered by your Apple warranty if you have one.

However, as we mentioned above, slowness can be a matter of perception; but if you're sure something's up, and you've tried all our tricks, you may wish to ask Apple if they can check for a hardware issue.

The last resort: get a new iPhone

If Apple can't help, or their help is too expensive to be worth it, we reach the final option: give up on your older iPhone and buy something newer.



Blocked phone

How to find out if your number has been blocked

Have you been blocked by an iPhone using iOS 7 or iOS 8? In this article we explain the telltale signs that you've been blocked by an iPhone: the way your phone behaves as you (unsuccessfully) try to get through, what the response will be as you call, text and attempt to leave a message, the giveaway number of rings before being diverted to voicemail and so on. We'll help you work out if someone has (for whatever reason) blocked your number on their iPhone.

We've also got links to articles that explain how to bypass the iOS call block if you wish (although there are ethical and potentially even legal

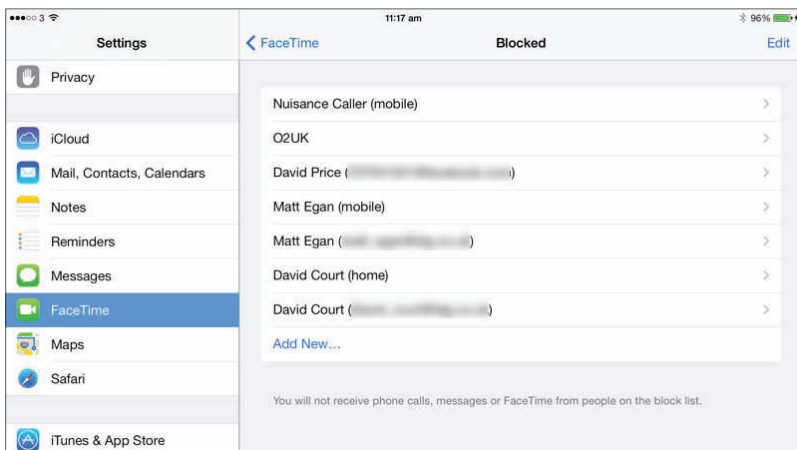
implications to this), and how to block nuisance numbers on your own iPhone.

iOS blocking

One of the simplest but most convenient new features added in iOS 7 – 2013’s updated version of Apple’s operating system software for iPad, iPhone and iPod touch – was the ability to easily block the phone numbers of nuisance callers. You can also block numbers in iOS 8.

This is great news for those who are plagued by calls from salesmen or drunken ex-partners. But what if you’re on the receiving end? How can you tell if someone has blocked you on their iOS 7 or iOS 8 iPhone?

The simple answer is that you can’t easily find out for sure; but there are clues. We blocked one of our other phones to find out exactly what it’s like to be blocked, to help us work out when we’ve been blocked in the future.

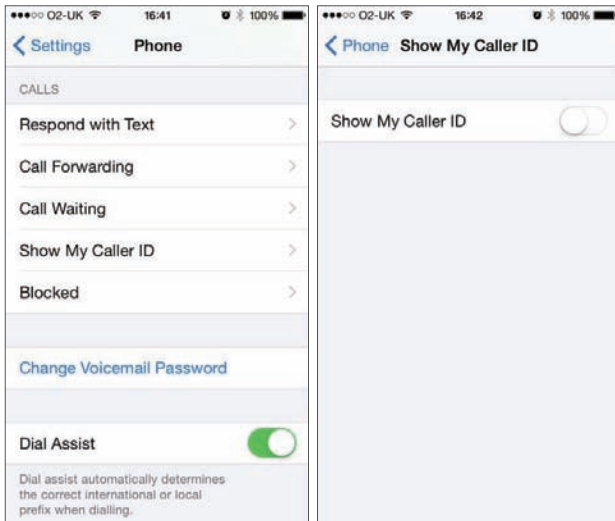


What happens when you ring someone who's blocked your number?

We rang the iPhone that had blocked us. The phone rang exactly once, and then we were told that the number was unavailable. Then we were invited to leave a message. (Note that the iPhone never received any notification that this message had been left. But the blocker can access these messages if they choose to go into their voicemail and scroll down to the 'Blocked Messages' folder. Thanks to reader Kat for bringing this to our attention.)

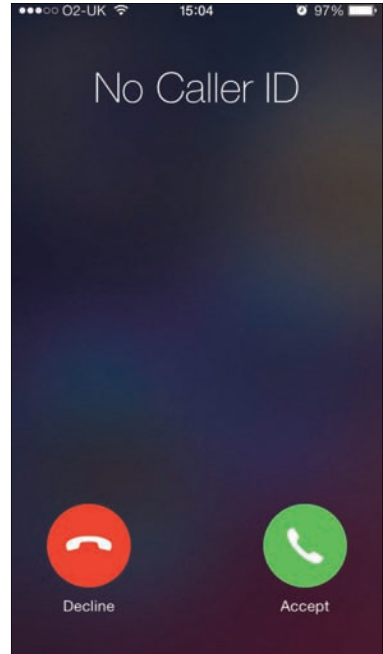
A single ring and then being diverted to voicemail is the giveaway behaviour you're looking for. Bear in mind that this can also result from the phone being switched off or set to auto divert.

To rule these out, you can immediately ring again from a different number, or disguise your number using the relevant code for your country (141 from a



UK land line, for instance), or by switching off your call ID in the settings if you're using an iPhone (Settings → Phone → Show My Caller ID, switch to off).

This time your number won't be visible and any block on that number will be bypassed. If the phone really is switched off or set to divert, it will once again ring once and then go to voicemail. But if you were blocked, either the person will pick up, or it will ring a few times until you ring off or they turn down the call because there isn't a caller ID they recognise.



What about if you text the 'blocker'?

We tried to send a text message to the phone that had blocked us. Everything proceeded as usual: the text sent, and we got no error message. But the 'receiver' didn't get any message, or any notification.

But a clever reader, Vickie Humphrey, has thought up a way to get more clues: try to send the text as an iMessage.

"The way to tell if you've been blocked," Vickie explains, "is by checking to see if your iMessage says 'Delivered'. You've been blocked if it doesn't, and after a good few minutes, it sends as a text message. Which is never actually being received."

Thanks, Vickie.

How to tell if someone has blocked your phone number

So. Other than the obvious clues – you never seem to be able to get through to someone, despite ringing at various times and checking that you’ve got the right number – the main giveaway is the way you get diverted to voicemail after exactly one ring. If your call is manually declined, or if they’re just not available, then you’d expect the phone to ring several times before you’re diverted.

If you’re getting a single ring before being diverted to voicemail, and then when you try again with caller ID hidden you get a different response (multiple rings and then declined or diverted, or they pick up) then something is probably up.

Finally, Vickie’s clever iMessage trick (see previous section) is a useful way of seeing if you’ve been blocked, assuming you’re calling from an iPhone.

Remember that just because you are allowed to leave a message – or because your text seemed to go through without any problems – that doesn’t put you in the clear. The blocking process is quite sneaky about letting you (the caller) know what’s happened.

As we said, though, there’s no way to be sure this is what’s happened, so be careful before you start throwing around accusations! And if any amateur sleuths out there work out a foolproof method of finding out if you’ve been blocked, let us know in the comments or via Twitter. Our thanks to the clever readers who’ve already contributed techniques for cracking the mystery.

How to call someone anyway, even though they've blocked you

Yep, as discussed briefly above, it's possible to hide your caller ID (or use a code to stop it from being revealed) and thereby call someone who's blocked you. We take no responsibility for the legal and social consequences of doing this – it's an emergencies-only strategy that some would consider harassment, and personally we'd take the hint and stop calling.

How to block a number

This is all very upsetting, of course, but call-blocking is actually a very useful feature of iOS 7 and iOS 8. If you're getting calls from a persistent telesalesman or infatuated ex – or you want to take revenge on the person we've been talking about in this tutorial – then it's easy for you to make use of the feature yourself. And now you know what they'll be experiencing.

Create New Contact

Add to Existing Contact

Block this Caller



Time-lapse video

How to create your own time-lapse movie

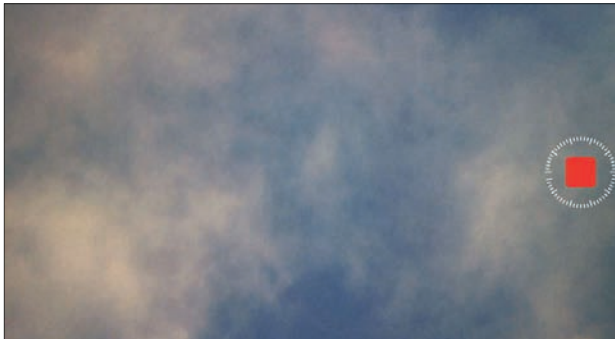
Time-lapse video is one of the new camera features in iOS 8. It's a video recording mode that captures video at a very low frame rate – around one to two frames per second, although this depends on the length of the recording – which means that when you play it back at 30 frames per second it has been sped up.

It's a great technique for shooting largely static environments that change slowly – the sun moving across the sky, flowers opening and closing – or for creating artistic, music-video style recordings in crowded areas.

Switch on the time-lapse shooting mode

You access Time-lapse in the Camera app by scrolling all the way to the left to select the Time-lapse recording mode. You'll notice that the red record button is encircled by a timer that indicates that you are recording. Tap that to begin recording and you will see the timer counter move around the record button. Tap the recording button again to stop recording.

When played back Time-lapse video is almost the opposite of slow motion. Slo-mo shoots more frames per second than normal shooting, so that when it's played back at a normal framerate it spreads out over a longer period and everything happens more slowly; time-lapse shoots on a frame or so per second, so that when it's played at 30fps you rattle through minutes – or even hours – in just 30 seconds or so.



Which iOS device can use the time-lapse feature in iOS 8?

Every device that can run iOS 8 can use the time-lapse shooting mode. In other words, the following:

iPhone 4s and later
iPad 2 and later
iPad mini (original) and later
iPod touch (fifth generation)

Don't assume that the longer you record, the longer the video will be...

We found that recording for a long time doesn't make for a significantly longer video. You will find that most time-lapse video recordings play back in 20- to 40 seconds, regardless of how long you recorded for. This is actually a useful feature, as it means that you won't fill up your iPhone storage during the recording. But it is also why the video you recorded for ages isn't much longer than one you recorded in just a few minutes.

According to Apple's website, the number of frames captured per second is relative to the time you are recording for. The longer you record for, the fewer frames will be captured each second – and the more dramatic the 'speeding up' effect when it's played back at 30fps.

If you record for less than 10 minutes the phone will capture 2 frames per second. (So when you play it back at 30fps, it's been speeded up 15 times.) If you get past the 10-minute mark, your iPhone will retrospectively discard half of the frames captured thus far, and from then on record only 1fps. The framerate drops again at 40 minutes, one hour and 20 minutes, and so on. This post explains the process in impressive detail.

While the video will be vastly smaller in size than a normal-speed video of the same scene would

have been, don't expect a really small file size. Our smallest clip here is only a second long and takes up 4.2MB. Our biggest is 75MB and lasts 31 seconds.

Apple says you can record for as long as 30 hours. We didn't try that, but we are pretty confident that the resulting video would not be significantly longer than one shot in 20 minutes.

Tips for shooting time-lapse videos

Here are a few simple tips that will help you capture good-quality, effective-looking time-lapse videos.

1. Keep the iPhone still

When you're recording, keep the iPhone really still for the best results. We recommend that you rest the phone somewhere or use a tripod, rather than hold it in your hand. This is partly to avoid wobble, which will spoil the recording, but also because if you are attempting to hold the phone still for a good few minutes your hand is going to end up hurting!

2. Capture contrast

The best recordings capture the contrast between moving and still objects. Keep the phone still and



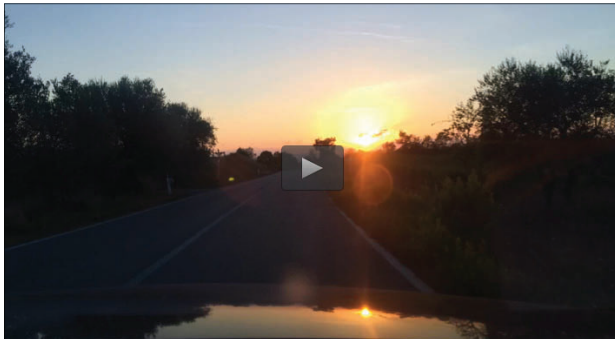
record traffic speeding past, or place the phone on a table and record people going about their business.

The key is to record in a location where you can contrast still objects with moving objects. In this example we recorded people moving around in the Accademia Gallery in Florence (that's Michelangelo's David in the background on page 63).

3. Record movement

Alternatively, you could record movement. We popped the iPhone in a car mount and recorded for a good few minutes while driving a car through the Tuscan countryside.

The same concept doesn't work quite as well when we recorded a time-lapse while walking around, because it wasn't steady – the phone itself was wobbling around. We also found that if you do scan around with the phone you want to do so as slowly as possible – remember that the smallest and slowest movements will be sped up when you play them back. The best advice is that if you are moving the iPhone around when you are recording do so very slowly.



4. Capture something that changes slowly

The best time-lapse recordings are of things that don't change quickly. The benefit of the time-lapse format here is that what could be a pretty boring 30-minute video of the sun setting can be condensed into a 30-second clip. Equally, you could record a flower opening or a candle burning – anything that changes gradually.

Time-lapse in essence allows you to record something where the changes would be too subtle to notice if you watched in real time.

5. Ask your subject to move slowly

If you want to capture a person moving you will get the best results if they move slowly.

As you can see in this video, if your subject does anything quickly the movement may only be captured in one or two frames of action. However, you can get some funny Charlie Chaplin-style results if you record someone walking towards you.

As usual with time-lapse, it's the length of time you record that gives you the best results.

6. Record a busy scene

You can also get good results if you sit the iPhone somewhere and record the scene in front of it. We recorded this in a busy square. The movement of the people passing through contrasts with the stillness of the background.

7. Beware battery life

While time-lapse recordings are designed not to use up as much memory as conventional video would,

beware that they do use a lot of battery power. If you want to record a 30-hour time-lapse you will most definitely want to plug your iPhone into a power source. Given that the camera app is one of the most power-hungry apps on the iPhone this isn't surprising, but it's something to keep in mind before you get too time-lapse happy.

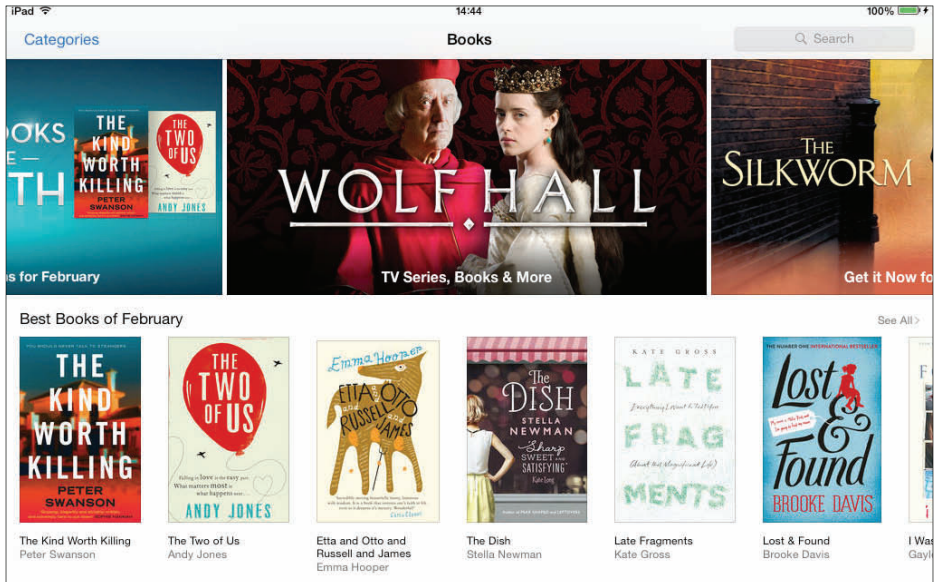
Can I change the settings?

No. Take a look in the Photos & Camera section of the Settings app: there's no mention of time-lapse.

Apple's time-lapse feature is designed to be simple to use. Apple does all the processing in the background: you only need to select record and stop. This means you don't get to choose how many frames are recorded or the speed at which the video plays back. Apple makes that decision for you.

If you want more flexibility, however, there are plenty of time-lapse apps you can download from the App Store. Good choices include Hyperlapse and Frameographer. Hyperlapse, for example, allows you to choose the speed at which the video plays back. It also offers good image stabilisation features.





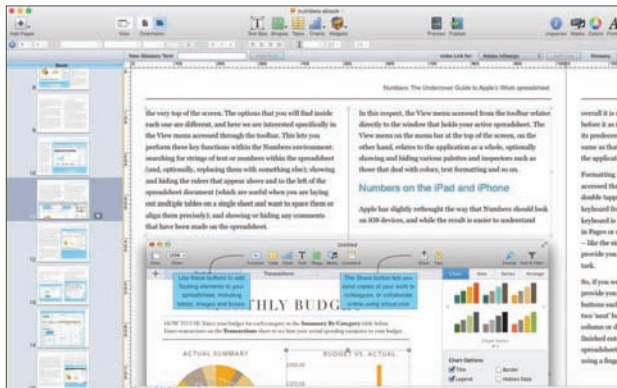
Sell your books

Become a published author on the iBookstore

By opting for ePub and shipping free tools like iBooks Author, Apple has made it easy to create books for sale through its online iBookstore. Creating the books themselves is only half the story, though, as we'll explain.

Multi-touch vs reflowable books

The iBookstore sells both fixed layout Multi-touch books created using iBooks Author (free from the Mac App Store) and largely text-based reflowable books produced using apps like Scrivener. Use the former for layout-dependent textbooks and digital



coffee table publications, and the latter for novels and other titles where the text can flow from page to page as the rear resizes and changes the font.

Bear in mind when making your choice that Multi-touch books can only be opened in iBooks on an iPad, or a Mac running OS X Yosemite or later.

Once you have finished creating your book you'll need to publish two editions. One is the complete manuscript; the other is a sample that readers can download for free. If you're using Scrivener to produce a reflowable book, create the latter by unchecking most of the boxes in the export dialog until only the sample pages remain, then export this second copy in ePub format. If you're creating a Multi-touch book in iBooks Author, clicking Publish on the toolbar creates both the complete book and the sample at the same time.

Opening an account

Before you can sell books on the iBookstore, Apple needs to know who you are so that it can pay you any royalties that are due. Accounts are free to set

up (Apple deducts a 30 percent fee from each book sold, so if you sell nothing you pay nothing) but you do need to decide whether to sign up directly, in which case you keep the whole of the remaining 70 percent, or through an aggregator, which simplifies the process but means the aggregator themselves – a company that acts as a front for multiple smaller publishers – takes a further cut itself.

Signing up to an aggregator

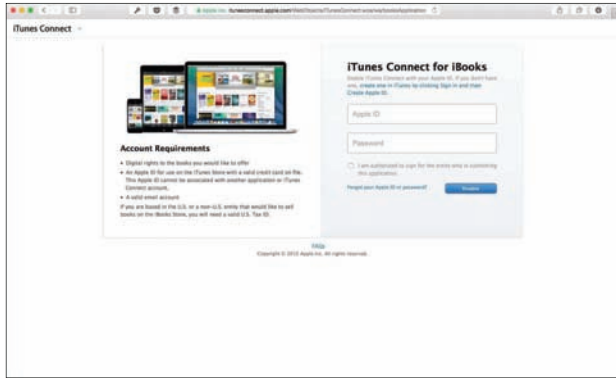
Aggregators accept your book and publish it on your behalf, taking care of all tax and administration issues and passing on a proportion of the takings once they've passed a certain threshold.

You'll find a list of Apple's approved aggregators at tinyurl.com/45wsa9s and can click through directly to each one for instructions on how to provide your content, what services they offer (which may include ePub conversion itself) and how often they pay out your earnings.

Selling your books directly

If you'd rather sell your books yourself and keep the full 70 percent you'll need to set up an account with iTunes Connect, which requires an Apple ID. You may already have one of these for downloading music, but if you're already using it to sell music or other media through Apple you'll need to set up another account, as Apple requires discrete IDs for each media type you want to sell through its stores.

Go to tinyurl.com/qardrpm and click Get Started. If you already have an Apple ID that you're not using to sell other media, enter it in the boxes on the



following page to enable it for selling books. If not, click the link to create a new ID.

Paying your dues

It's not possible to sell books without registering with the US tax service. This is a simple process, but requires that you submit to a telephone or form-based interview for enrolment. You can enrol as a person or a company, and you'll be issued with a tax number that you need to enter as part of the iTunes Connect signup process. You must sign up for iTunes Connect using whichever name matches the tax ID, so consider what this should be before completing your tax enrolment.

You can apply for your Tax ID at [here](#) or by calling +1 267 941 1099 between 6am and 11pm Eastern Time (11am to 4am GMT). Once you're enrolled you'll receive a paper notification through the post and will need to fill in a simple tax return to submit to the US authorities at the end of each tax year detailing any earnings you've made selling books through Apple.



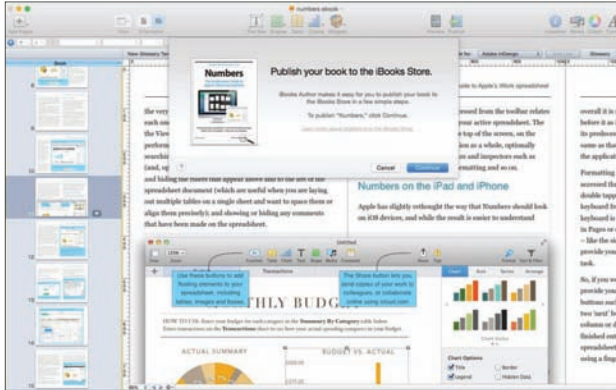
You'll need to register with the US tax service and obtain an identifier, which Apple will need you to enter before you start selling through the iBookstore.

Uploading your book

Once your application has been approved you're ready to upload your book. If you're publishing through iBooks Author you'll already have finished the first step when you clicked Publish on the toolbar, as it will have created a new project in iTunes Producer – the app used to upload it to the store – and attached both your book and the free excerpt.

If you're publishing a reflowable book created using an alternative application you need to complete the first step manually, so open iTunes Producer and create a new project, then add your exported ePub file and excerpt.

However you created your book you now need to fill out the form detailing your author name, book title, publisher (which can be yourself) and so on. The more details you provide, the better you'll perform in search results, and some of them, such



as category, are compulsory. If you miss out any that are required, iTunes Producer will throw up a warning so you can go back and fix it.

It's up to you whether you add any screen grabs showing the interior of your book, but you'll know from your own experience of browsing the iBookstore (and App Store) that grabs really help to sell a product.

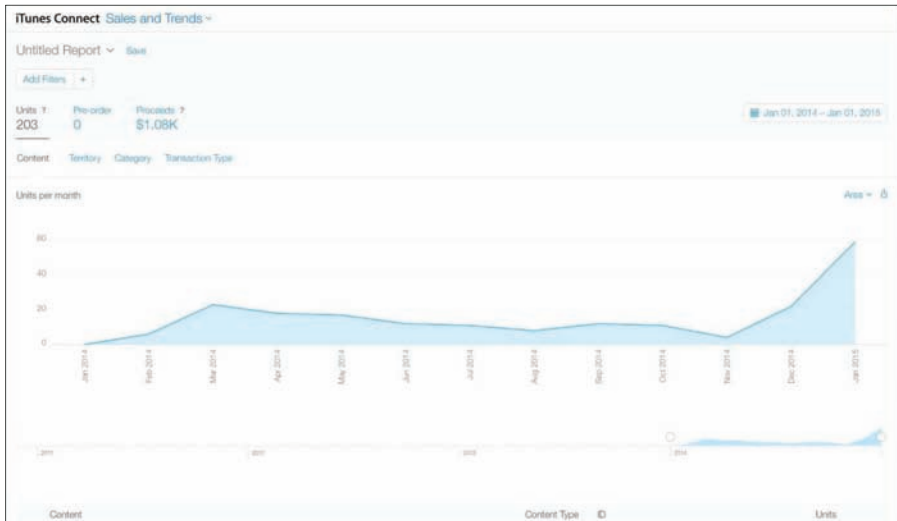
Work your way through the three tabs at the top of the iTunes Producer window, specifying a price and making sure that the book you want to submit

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		Bolivia	✓				Tier 10 (11.0M USD) 2
The United States and Canada		Brazil	✓				Tier 10 (11.0M USD) 2
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		Chile	✓				Tier 10 (11.0M USD) 2
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is attached. Apple can work out the appropriate price to set for your book in various territories based on the one you provide for the UK if you don't want to set each one individually. Check each of the tabs to ensure you have provided all the information you need and then click the Submit button. iTunes Producer will upload your book to the store so that Apple can approve it. Although this used to take the best part of a week, approval usually now takes less than one working day.

Monitoring your sales

Once your book has been approved it will be available for purchase on the store. You can monitor your sales and make changes to the price and description by logging in with the Apple ID associated with your iBookstore account at itunesconnect.apple.com.





Back up an iPhone

Make sure you don't lose precious data

Out iPhones are probably one of the most important possessions we have. Putting aside the financial worth of each device, these little slabs of silicon and glass have become the central repositories for our memories, be they photographs of once-in-a-lifetime events or important documents. Making sure that all of this precious data is backed up somewhere is a crucial safeguard against theft, damage, or leaving our worlds behind on the backseat of a taxi. Then of course there's the more joyous occasions of upgrading to a newer model and

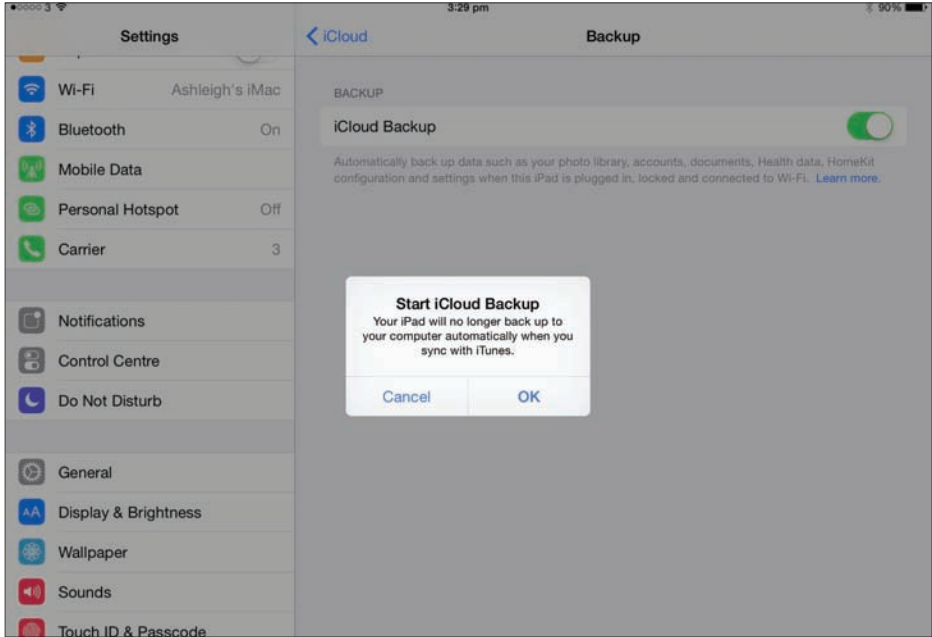
being able to transfer all of your data quickly and simply by using a backup.

Thankfully there are many ways to store your information on the web or your personal computer, all of which are free and easy to use. Apple's iCloud service means your iPhone can constantly sync important data with web-based servers, and iTunes also offers a simple one-click backup facility. There are also several third-party services that offer a variety of options these days. As a safety precaution we recommend using at least two of available solutions, because if the worst happens and your backup is somehow corrupted, you'll have another version available elsewhere.

Using iCloud

One of the simplest ways to backup the data on your iPhone is to use Apple's own iCloud service. Each Apple ID has 5GB of storage available, in which you can store bookmarks, contacts, calendars, iCloud documents, mail message, notes, and your iCloud photo library. If you take lots of pictures and videos then you may need to upgrade the storage capacity, as it will soon fill up. At the moment Apple offers 20GB for £0.79p/m, up to 1TB for £14.99p/m. While iCloud backups are very handy, they're best used in conjunction with iTunes, to cover all bases. iCloud backups are very easy to set up and once done they will automatically run in the background each time your device is plugged in and on a Wi-Fi connection.

To use iCloud backups, you'll need an iCloud account, which are usually created when you first setup your device.



On your iPhone go to Settings → iCloud → Backup and you'll see the option to toggle on iCloud Backup. That's it, you're good to go. Now your phone will automatically look after your data without any need for you to get involved.

Using your PC and iTunes

Having a local backup is always a good idea, as it means you at least know that you have a copy that you control, rather than trusting to the all powerful cloud. Making a local backup is very easy thanks to that old favourite iTunes. Years ago you would have regularly plugged your iPhone into your PC to sync music, but with the advent of iTunes Match it's maybe fallen a little out of favour. iTunes still remains

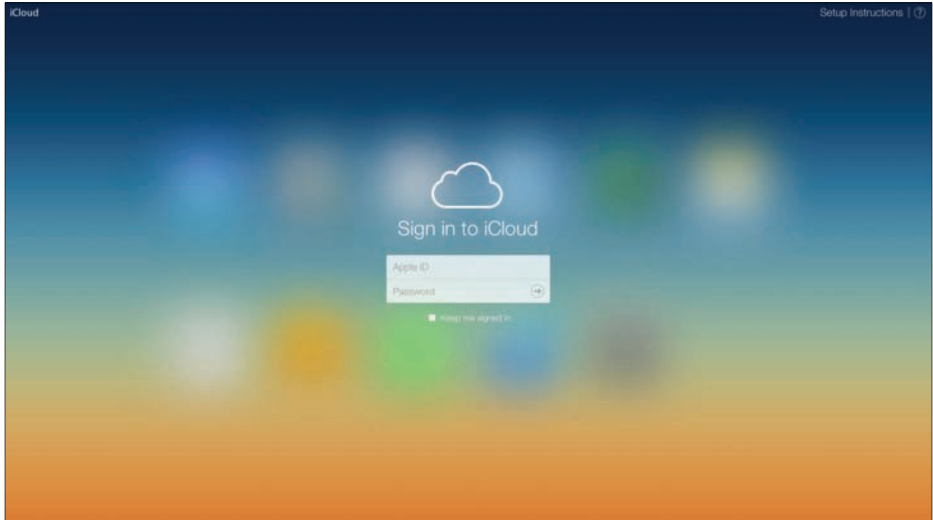
a very useful piece of software though, and will give you a complete backup in a matter of minutes.

First off, plug a connector cable into your Mac or PC and then your iPhone. In the top left hand corner, under the play controls, you'll see a little icon of a phone appear, click this and you'll be taken to the menu for your device. Ensuring that Summary is selected in the left hand column, you'll now have three boxes in the main pane, the middle of which is entitled Backups.

There are two main sections – automatic and manual – and usually the iPhone is set to automatically backup to iCloud. If you prefer that each time you connect your phone to the PC it would immediately create a new, locally stored, backup, then click the 'This computer' option below. Moving over to the right hand side of the box there is the option to create a backup manually. Clicking the 'Back Up Now' button will do exactly that, with the length of time it takes dependant on how full your phone's storage is at that moment. Next to this is the Restore from Backup option, which is where you would head if you wanted to reinstall everything after replacing your iPhone.

You may be asking yourself exactly what is included in the backup? Any photos currently on the device will be stored, as will contacts, calendar accounts, Safari bookmarks, notes, call history, profiles, and several other types of data. Apple has an extensive list of all the things contained in a backup, which you can read [here](#).

The iTunes backup doesn't make extra copies of any media files though, so films, music, and apps



bought from iTunes will need to be downloaded again from the site or your PC.

Creating an encrypted backup in iTunes

There is one additional type of backup available in iTunes, which is an encrypted one. If you have sensitive data on your phone, or are just safety minded, then choosing this option will give you an added layer of security by making the backup accessible only through a password that you'll be prompted to create. Do remember though that this password will not be known to Apple, so if you forget what it is, then your backup will become useless. Due to the extra security levels of an encrypted backup Apple adds additional data that is withheld from the standard version. This includes information from the Health app, alongside your password keychain.

Using third-party services

There's a sage piece of advice in security circles that states, 'If something is only backed up once, it isn't backed up at all.' Creating multiple copies of data is the only way to really guarantee that it won't get lost in the case of an accident. Signing up for free accounts with Dropbox, Google Drive, Microsoft OneDrive, or one of the many other options around gives you an easy way to keep your photos and documents safe without too much effort. Pretty much all of them offer automatic syncing, and it won't interfere with iCloud. So download one, or a few of the apps, follow the instructions, and you'll have another safety net running in the background. One word of warning though. Be sure to check the settings for each app, and slide the Use Cellular Data option to off, otherwise you might get a nasty surprise when your next bill arrives.



